



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/823,391

04/13/2004

Alan L. Browne

H-205856

3380

7590 04/27/2009
KATHRYN A MARRA
General Motors Corporation
Legal Staff, Mail Code 482-C23-B21
P.O. Box 300
Detroit, MI 48265-3000

EXAMINER

JEN, MINGJEN

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

04/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,391	Applicant(s) BROWNE ET AL.	
	Examiner IAN JEN	Art Unit 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 11-19, 39-46 and 49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 11-19, 39-46 and 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/30/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is response to the amendment filed on October 27th, 17, 2008
2. Claims 1 and 45 has been amended.
3. Applicant's remark has been addressed in the response to argument section.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 11-19, 39-46, 49 rejected under 35 U.S.C. 102(b) as being anticipated by Koike (US Pat Pub No 2003/00006889).

As for claim 1, Koike shows a method of predicting severity of a potential collision of first and second vehicles (Para 0064 – 0068, Fig 6), the method comprising: determining a probability of the potential collision of the vehicles (Fig 23, Step 170; Para 0175 – 0184) ; exchanging vehicle condition-defining signals between the first and second vehicles in response the probability of the potential collision being greater than a threshold value (Fig 30, S 225; Para 0217 - 0223), the vehicle condition-defining signals including a first vehicle condition-defining

Art Unit: 3664

signal developed onboard the first vehicle and a second vehicle condition-defining signal developed onboard the second vehicle (Fig 1, 16, Fig 4A, Fig 4B; Para 0064 - 0080; Para 0097 - 0100); predicting onboard the first vehicle a severity of the potential collision for the first vehicle based on input including the first vehicle condition-defining signal and the second vehicle condition-defining signal (Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134) ; and predicting onboard the second vehicle a severity of the potential collision for the second vehicle based on input including the first vehicle condition-defining signal and the second vehicle condition-defining signal (Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134).

As for claim 11, koike shows the probability of the potential collision is greater than the threshold value if the first vehicle is less than a selected distance from the second vehicle (Para 0071 -0081; Para 0110 - 0121).

As for claim 12, koike shows the probability of the potential collision is greater than the threshold value if the vehicles are closing on each other (Para 0071 -0081; Para 0110 -0121).

As for claim 13, koike shows the probability of the potential collision is greater than the threshold value if an estimate of time until the potential collision is less than a selected time period (Para 0071 -0081; Para 0110 -0121; Fig 4B Step22; Para 0098 - 0100).

Art Unit: 3664

As for claim 14, koike shows the threshold value indicates that the potential collision is imminent (Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38).

As for claim 15, koike shows the threshold value indicates that the potential collision is nearly imminent (Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38).

As for claim 16, koike predicting the severity of the potential collision for the first vehicle includes estimating the order of potential collision occurrence when potential collisions with more than one vehicle are predicted for the first vehicle (Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38; Para 0134 – 0127; Para 0152 - 0156).

As for claim 17, koike shows predicting the severity of the potential collision for the first vehicle includes estimating vehicle trajectory after the potential collision (Para 0143 – 0157).

As for claim 18, koike shows predicting the severity of the potential collision for the first vehicle includes estimating the location of impact on the first vehicle (Para 0143 – 0157).

As for claim 19, koike shows the vehicle condition-defining signals are developed in response to one or more of vehicle geographic position data, vehicle onboard sensor data, stored vehicle identification data, and pre-collision sensor data (Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38; Para 0134 – 0127; Para 0152 – 0156, Para 0182; sensor section 218).

Art Unit: 3664

As for claim 39, koike shows a method of predicting severity of a potential collision of first and second vehicles (, Fig 6), the method comprising: determining a probability of the potential collision of the vehicles (Fig 23, Step 170; Para 0175 – 0184); developing a first vehicle condition-defining signal for the first vehicle in response to one or more of first vehicle geographic position data, first vehicle on-board sensor data, first stored vehicle identification data, and first vehicle pre-collision sensor data (Fig 30, S 225; Para 0217 - 0223); and transmitting the first vehicle condition-defining signal to the second vehicle when the probability of the potential collision being greater than a threshold value; and predicting onboard the first vehicle a severity of the potential collision for the first vehicle when the probability of the potential collision being greater than a threshold value (Fig 1, 16, Fig 4A, Fig 4B; Para 0064 - 0080; Para 0097 – 0100; Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134; Para 0143 – 0157), wherein input to the predicting includes one or more of the first vehicle geographic position data, the first vehicle on-board sensor data, the first stored vehicle identification data, and the first vehicle pre-collision sensor data (Fig 1, 16, Fig 4A, Fig 4B; Para 0064 - 0080; Para 0097 – 0100; Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134; Para 0143 – 0157).

As for claim 40, koike shows receiving a second vehicle condition-defining signal from the second vehicle, wherein the input to the predicting further includes the second vehicle condition-defining signal (Fig 3, Fig 1, other vehicle; Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38; Para 0134 – 0127; Para 0152 – 0156, Para 0182; sensor section 218).

As for claim 41, koike shows the probability of the potential collision is greater than the threshold value if the second vehicle is detected by the first vehicle and wherein the first vehicle condition-defining signal for the first vehicle announces the presence of the first vehicle to the second vehicle (Para 0064 - 0080; Para 0097 – 0100; Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0143 – 0157).

As for claim 42, koike shows threshold value if the potential collision is predicted to occur within a selected time period and wherein the first vehicle condition-defining signal for the first vehicle announces the presence of the first vehicle to the second vehicle (Fig 1, 16, Fig 4A, Fig 4B; Para 0064 - 0080; Para 0097 – 0100; Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54).

As for claim 43, koike shows developing a first vehicle condition-defining signal for the first vehicle occurs when the probability of the potential collision being greater than a threshold value (Fig 30, S 225; Para 0217 - 0223).

As for claim 44,koike shows developing a first vehicle condition-defining signal for the first vehicle occurs on a continuous basis while the first vehicle is being operated (Fig 33, 34; Para 0068 - 0080).

As for claim 45, koike shows a method of predicting severity of a potential collision of first and second vehicles (, Fig 6), the method comprising: determining a probability of the

Art Unit: 3664

potential collision of the vehicles (Fig 23, Step 170; Para 0175 – 0184); exchanging vehicle condition-defining signals between the first and second vehicles when the probability of the potential collision being greater than a threshold value (Fig 30, S 225; Para 0217 - 0223), the vehicle condition-defining signals including a first vehicle condition-defining signal and a second vehicle condition-defining signal (Fig 1, 16, Fig 4A, Fig 4B; Para 0064 - 0080; Para 0097 - 0100) ; predicting a severity of the potential collision for the first vehicle based on input including the first vehicle condition-defining signal and the second vehicle condition-defining signal (Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134) ; and predicting a severity of the potential collision for the second vehicle based on input including the first vehicle condition-defining signal and the second vehicle condition-defining signal (Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134).

As for claim 46, koike shows one or more of the determining, exchanging, predicting a severity of the potential collision for the first vehicle, and predicting a severity of the potential collision for the second vehicle is performed by a system that is remote to at least one of the first vehicle and the second vehicle (Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134).

As for claim 49, koike shows an apparatus for use onboard a first vehicle for predicting severity of a potential collision of the first vehicle and a second vehicle (, Fig 6, Fig 1, ECU 12) , the apparatus comprising: means for determining a probability of a potential collision between

Art Unit: 3664

the first and second vehicles; means responsive to the determining for transmitting a first vehicle condition-defining signal developed onboard the first vehicle to the second vehicle when the probability of the potential collision being greater than a threshold value (Fig 23, Step 170; Para 0175 – 0184, Fig 2, Fig 3); means for receiving from the second vehicle a second vehicle condition-defining signal developed onboard the second vehicle (Fig 1, 16, Fig 4A, Fig 4B; Para 0064 - 0080; Para 0097 – 0100; Fig 2, Fig 3, Fig 5); and means for processing the first vehicle condition-defining signal and the second vehicle condition-defining signal for predicting the severity of the potential collision (Fig 6, Fig 8, Step 36 – 38; Fig 10, Step 52 – 54; Fig 16, Step 110 – 112; Para 0116 – 0121; Para 0129 – 0134; Fig 2, Fig 3, Fig 5) .

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10, 26, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike (US Pat Pub 2003/0006889) in view of Ochi et al (US Pat No 5913910).

As for claim 10, koike is silent regarding input to the determining includes driver state data. Ochi et al shows input to the determining includes driver state data (, Col 5, lines 22- Col 6, lines 24).

Art Unit: 3664

It would have been obvious for one of ordinary skill in the art, to provide the driver state data, as taught by Ochi et al, to Koike, in order to provide basic mobile driving input information.

As for claim 26, koike shows the probability of the potential collision is greater than the threshold value (Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38; Para 0134 – 0127; Para 0152 – 0156, Para 0182; sensor section 218), command responsive to the severity of the potential collision for the first vehicle (Para 0071 -0081; Para 0110 -0121; Fig 8, Step 38; Para 0134 – 0127; Para 0152 – 0156, Para 0182; sensor section 218). Koike is silent regarding transmitting a command to set a control on an occupant protection device on the first vehicle.

Ochi et al shows transmitting a command to set a control on an occupant protection device on the vehicle (; Fig 2, brake controller 219, transmission controller 218, ignition timing controller 216; Fig10, Col 5, liens 10 – Col 6,lines 25).

It would have been obvious for one of ordinary skill in the art, to provide protection device as taught by Ochi et al, to koike, in order to avoid potential collision.

As for claim 32, Ochi et al shows a command to an occupant protection device, the command responsive to the probability of the potential collision (; Fig 2, brake controller 219, transmission controller 218, ignition timing controller 216; Fig10, Col 5, liens 10 – Col 6,lines 25; Fig 8, step 804 - 808; Col 4, lines 25 - 65).

It would have been obvious for one of ordinary skill in the art, to provide protection device as taught by Ochi et al, to koike, in order to avoid potential collision.

Response to Arguments

8. In response to applicant's remark states that Koike does not show exchanging signals "in response" to collision probability being evaluated, rather Koike only disclose exchanging the signals before and in preparation for determining the collision probability. Applicant's attention is directed to Paragraph 0222, where states, " On the other hand, if the user's vehicle have the speed higher than that of another vehicle, as judgment is then made as to whether there is a possibility of collision with a third vehicle (any vehicle other than another vehicle which is determined to have a possibility of collision in S207) by avoidance control of the user's vehicle (S236). This judgment is enabled by, for example, existence or absence of a vehicle following the user's vehicle and existence or absence of any vehicle traveling in a lane adjacent to that of the user's vehicle (existence of these vehicles can be detected by the inter-vehicle communication or a radar apparatus mounted in the user's vehicle); the priority is given to another vehicle if there is no possibility of a collision with the third vehicle (S328); and the same is given to the user if there is a possibility of collision with the third vehicle(S237). The user's vehicle executes the avoidance operation if "another vehicle takes priority". In this instant case, the probability of collision is first measured at step 206 and forward to step 207 shown on figure 26, 26 and further response in action, which is the action in response to collision probability being evaluated is taken throughout the following.

9. In response to applicant's remark states that Koike does not show vehicle condition defining signal between the first and second vehicles in response to the probability of the

Art Unit: 3664

potential collision being greater than a threshold value. Applicant's attention is directed to Para 0163, where Koike states, "As to threshold values for the judgment in the Processing S122, it is determined that the crash probability is, for example, 95%". Applicant's attention is further directed to Fig 8, Step 37,38 where the collision possibility is calculated and decision implemented in a continuous loop before, in preparation and after for determining the collision possibility. Further, applicant's attention is directed to Paragraph 0222, where states, " On the other hand, if the user's vehicle have the speed higher than that of another vehicle, as judgment is then made as to whether there is a possibility of collision with a third vehicle (any vehicle other than another vehicle which is determined to have a possibility of collision in S207) by avoidance control of the user's vehicle (S236). This judgment is enabled by, for example, existence or absence of a vehicle following the user's vehicle and existence or absence of any vehicle traveling in a lane adjacent to that of the user's vehicle (existence of these vehicles can be detected by the inter-vehicle communication or a radar apparatus mounted in the user's vehicle); the priority is given to another vehicle if there is no possibility of a collision with the third vehicle (S328); and the same is given to the user if there is a possibility of collision with the third vehicle(S237). The user's vehicle executes the avoidance operation if'another vehicle takes priority". In this instant case, the probability of collision is first measured at step 206 and forward to step 207 shown on figure 26, 26 and further response in action,which is the action in response to collision probability being evaluated is taken throughout the following. Further, applicant's attention is directed to Para 0221, where states, " Fig 31. illustrates the detail of the processing in S211. Cruising lanes and roads of the user's vehicle and another vehicle are first specified based on map data stored in a memory, the detected position of the user's vehicle and

Art Unit: 3664

the receive position of another vehicle to detect a priority relationship between the user's vehicle and another vehicle in accordance with road rules. A judgment is made as to whether the user's vehicle takes priority and, if the user's vehicle does not take priority, a priority flag for another vehicle is set (for example, a flag P is set to 1:230). If the user's vehicle takes priority in accordance with road rule, the current traveling speeds of the user's vehicle and another vehicle are compared with each other (S233). If a result of comparison reveals that the speed of another vehicle is higher, the priority flag for another vehicle is set (S234). The priority is given to the vehicle having the higher speed because it can be considered that execution of the avoidance operation by the vehicle having the higher speed." Applicant's attention is further directed to paragraph 0223, which states, "upon completion of examination of the traffic priority, a judgment is made as to whether the user's vehicle takes no priority (another vehicle takes priority) and the actuator section 20 malfunctions (S212). If the user's vehicle takes no priority and the actuator section normally operates, the user's vehicle must perform the avoidance operation, and hence the content of the avoidance control is included in the next vehicular motion arithmetic operation to be transmitted to another vehicle (S213). Since this signals another vehicle to receive the data representing that at the user's vehicle effect the avoidance operation in the next reception, another vehicle does not carry out the avoidance operation, incidentally, although the ECU 215 of another vehicle individually makes the similar judgment to decide that vehicle takes priority, that vehicle decides not to execute the avoidance operation upon receiving the data indicating that the other party's vehicle effects the avoidance control and determines that the priority is assigned to that vehicle rather than the other party's vehicle". In this instant case, vehicle condition defining signal between the first and second vehicles in response to the

Art Unit: 3664

probability of the potential collision being greater than a threshold value has been shown, Where the threshold value is mentioned as to threshold values for the judgment in the Processing S122, it is determined that the crash probability is, for example, 95%; the condition definign is to be implemented by the vehicle judgment system using the threshold value.

10. In response to applicant's remark states that Koike does not show exchanging vehicle condition-defining signals between the first and second vehicles in response to the probability of the potential collision being greater than a threshold value. Applicant's attention is directed to Para 0163, where Koike states, "As to threshold values for the judgment in the Processing S122, it is determined that the crash probability is, for example, 95%". Applicant's attention is further directed to Fig 8, Step 37,38 where the collision possibility is calculated and decision implemented in a continuous loop before, in preparation and after for determining the collision possibility. Further, pplicant's attention is directed to Paragraph 0222, where states, " On the other hand, if the user's vehicle have the speed higher than that of another vehicle, as judgment is then made as to whether there is a possibility of collision with a third vehicle (any vehicle other than another vehicle which is determined to have a possisibility of collison in S207) by avoidance control of the user's vehicle (S236). This judgment is enabled by, for example, existance or absence of a vehicle following the user's vehicle and existence or absence of any vehicle traveling in a lane adjacent to that of the user's vehicle (existence of these vehicles can be detected by the inter-vehicle communication or a radar aparatus mounted in the user's vehicle); the priority is given to another vehicle if there is no possibility of a collision with the third vehicle (S328); and the same is given to the user if there is a possibility of collison with the

Art Unit: 3664

third vehicle(S237). The user's vehicle executes the avoidance operation if "another vehicle takes priority". In this instant case, the probability of collision is first measured at step 206 and forward to step 207 shown on figure 26, 26 and further response in action, which is the action in response to collision probability being evaluated is taken throughout the following. Further, applicant's attention is directed to Para 0221, where states, " Fig 31. illustrates the detail of the processing in S211. Cruising lanes and roads of the user's vehicle and another vehicle are first specified based on map data stored in a memory, the detected position of the user's vehicle and the receive position of another vehicle to detect a priority relationship between the user's vehicle and another vehicle in accordance with road rules. A judgment is made as to whether the user's vehicle takes priority and, if the user's vehicle does not take priority, a priority flag for another vehicle is set (for example, a flag P is set to 1:230). If the user's vehicle takes priority in accordance with road rule, the current traveling speeds of the user's vehicle and another vehicle are compared with each other (S233). If a result of comparison reveals that the speed of another vehicle is higher, the priority flag for another another vehicle is set (S230). The priority is given to the vehicle having the higher speed because it can be considered that execution of the avoidance operation by the vehicle having the higher speed.". Applicant's attention is further directed paragraph 0223, where states, " upon completion of examination of the traffic priority, a judgment is made as to whether the user's vehicle takes no priority (another vehicle takes priority) and the actuator section 20 malfunction (S212). If the user's vehicle takes no priority and the actuator section normally operates, the user's vehicle must perform the avoidance operation, and hence the content of the avoidance control is included in the next vehicular motion arithmetic operation to be transmitted to another vehicle (S213). Since this causes another vehicle to

Art Unit: 3664

receive the data representing that at the user's vehicle effect the avoidance operation in the next reception, another vehicle does not carry out the avoidance operation, incidentally, although the ECU 215 of another vehicle individually makes the similar judgment to decide that vehicle takes priority, that vehicle decides not to executes the avoidance operation upon receiving the data indicating that the other party's vehicle effects the avoidance control and determines that the priority is assigned to that vehicle rather than the other party's vehicle". In this instant case, vehicle condition defining signal between the first and second vehicles in response to the probability of the potential collision being greater than a threshold value has been shown, Where the threshold value is mentioned as to threshold values for the judgment in the Processing S122, it is determined that the crash probability is, for example, 95%; the condition definign is to be implemented by the vehicle judgment system using the threshold value.

11. In response to applicant's remark that Koike does not show predicting onboard the first vehicle a severity of the potential collision for the first vehicle based on input including the first vehicle condition defining signal and the second vehicle condition defining signal. Applicant's attetnion is directed to Koike, Para 0097-0100, where states, "Here, FIG. 4A shows a flowchart of the transmission processing by the user's vehicle, while FIG. 4B shows the processing in another vehicle that receives the transmitted data. The user's vehicle obtains its position derived by GPS or other means and predicts its future from detection values from various sensors to calculate a predicted position in the future with the time as a function (S11). Then, the data representative of positions of the user's vehicle at the present time, two seconds later, . . . , n seconds later are arranged into individual data packets (packet 1 (the present, the position

Art Unit: 3664

coordinate at the present time), packet 2 (two seconds later, the coordinate of two seconds later), . . .) (S12). Each packet is transmitted in accordance with the communication pattern (the PN series or the frequency hopping) associated with its time and coordinate (S13). On the other hand, in another vehicle, a predicted position in the future is obtained with the time as a function (S21) and the communication pattern associated with the obtained position and the time data is calculated as similar to the user's vehicle (S22). The data corresponding to this communication pattern is received and demodulated (S23). Applicant's attention is further directed to Para 0071 – 0075 states the transmitted data based on the condition defining signal predicting a severity of the potential collision. In this instant case, the first vehicle transmit the data which is based on the vehicle defining signal based and utilized for prediction severity by GPS or other means is shown

12. In response to applicant's remark that Koike does not show predicting onboard the second vehicle a severity of hte potential collision for the second vehicle based on input including the first vehicle condition defining signal and the second vehicle condition defining signal. Applicant's attetnion is directed to Koike, Para 0097-0100, where states, "Here, FIG. 4A shows a flowchart of the transmission processing by the user's vehicle, while FIG. 4B shows the processing in another vehicle that receives the transmitted data. The user's vehicle obtains its position derived by GPS or other means and predicts its future from detection values from various sensors to calculate a predicted position in the future with the time as a function (S11). Then, the data representative of positions of the user's vehicle at the present time, two seconds later, . . . , n seconds later are arranged into individual data packets (packet 1 (the present, the

Art Unit: 3664

position coordinate at the present time), packet 2 (two seconds later, the coordinate of two seconds later), . . .) (S12). Each packet is transmitted in accordance with the communication pattern (the PN series or the frequency hopping) associated with its time and coordinate (S13). On the other hand, in another vehicle, a predicted position in the future is obtained with the time as a function (S21) and the communication pattern associated with the obtained position and the time data is calculated as similar to the user's vehicle (S22). The data corresponding to this communication pattern is received and demodulated (S23). Applicant's attention is further directed to Para 0071 – 0075 which states the transmitted data based on the condition defining signal predicting a severity of the potential collision. In this instant case, the second vehicle transmit the data which is based on the vehicle defining signal based and utilized for prediction severity by GPS or other means is shown.

13. In response to applicant's remark that Koike does not show predicting onboard the first vehicle a severity of the potential collision being greater than a threshold value. Applicant's attention is directed to Para 0163, where Koike states, "As to threshold values for the judgment in the Processing S122, it is determined that the crash probability is, for example, 95%". Applicant's attention is further directed to Fig 8, Step 37,38 where the collision possibility is calculated and decision implemented in a continuous loop before, in preparation and after for determining the collision possibility. Further, pplicant's attention is directed to Paragraph 0222, where states, " On the other hand, if the user's vehicle have the speed higher than that of another vehicle, as judgment is then made as to whether there is a possibility of collision with a third vehicle (any vehicle other than another vehicle which is determined to have a possisibility of

Art Unit: 3664

collision in S207) by avoidance control of the user's vehicle (S236). This judgment is enabled by, for example, existence or absence of a vehicle following the user's vehicle and existence or absence of any vehicle traveling in a lane adjacent to that of the user's vehicle (existence of these vehicles can be detected by the inter-vehicle communication or a radar apparatus mounted in the user's vehicle); the priority is given to another vehicle if there is no possibility of a collision with the third vehicle (S328); and the same is given to the user if there is a possibility of collision with the third vehicle (S237). The user's vehicle executes the avoidance operation if "another vehicle takes priority". In this instant case, the probability of collision is first measured at step 206 and forward to step 207 shown on figure 26, 26 and further response in action, which is the action in response to collision probability being evaluated is taken throughout the following. Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., predicting onboard the first vehicle a severity of the potential collision being greater than a threshold value) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN JEN whose telephone number is (571)270-3274. The examiner can normally be reached on Monday - Friday 9:00-6:00 (EST).

Art Unit: 3664

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ian Jen/

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664